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ABSTRACT

The paper cites the decreased funding in school budgets for special education instructional materials, discusses alternatives, and suggests ideas for designing and recycling materials. (CL)

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RECYCLING MATERIALS BROUGHT ON BY THE VANISHING DOLLAR

by

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RECYCLING MATERIALS BROUGHT ON

BY THE VANISHING DOLLAR

Research is not conclusive regarding the question of the best method to use when teaching young developmentally disabled children (MacMillan, 1977). However, the theoretical basis upon which many curriculums for handicapped children are designed reflect that these children learn best by being able to experience and manipulate objects in their own environments (Kirk, 1964). The history of the development of instructional materials for the handicapped reveals a variety of instructional objectives and curricular approaches which have served as a fountainhead for the utilization of materials (Anderson, Zia, Springfield, and Greer, 1977). These approaches have had major influences on the education of handicapped children. Instructional materials that resulted from these approaches stemmed from various hypotheses about learning; lack of commercially available materials on the market; or the inability to adapt these materials due to their complex nature (Anderson, Zia, Springfield, and Greer, 1977).

Teacher trainees and in-service teachers are very aware of the great responsibility placed upon them as directors of the teacher-learning process that takes place in the classroom. Many accept the challenge of imparting knowledge to the pupils and strive to make learning interesting and motivating to their pupils. However, once teachers have assumed their roles in the classroom, they begin to face the reality that, in spite of the knowledge gained in pre-service education and from experience, each child presents a unique educational and

learning style. Therefore, the materials needed to teach his/her learning style may not be readily available. The purpose of this paper is to discuss the vanishing dollars from the schools' budget each year for instructional materials; to identify alternatives to the limited allocation in the school budget for instructional materials, and to share some creative ideas, through a slide presentation*, for creating, designing, and recycling materials into interesting, attractive, and effective instructional materials.

USE OF TEACHING AIDS IN THE CLASSROOM

It is widely recognized that instructional materials, media, and educational technology are important in providing quality services for handicapped learners (Anderson, Zia, Springfield, and Greer, 1977). This has been evident by the amount of money the federal and state government has invested into support programs for handicapped learners in the past. The investment of millions of dollars into programs for the handicapped was done to extend appropriate educational opportunities to every handicapped child. However, even though considerable amount of money was available in the past for developing materials; field testing the materials, and establishing instructional material centers; recently, this financial support has dwindled at the federal and state levels. Wiegel (1976)

*Materials and ideas that will be presented were developed and compiled through a grant from the Ralston Purina Company.

points out that teaching, supported by media and other types of teaching aids, generally increases teaching effectiveness, and that money spent, in terms of cost-effectiveness, is relatively small in comparison with the cost of running the school industry. According to Frank (1977), teachers simply cannot reach and help each child as effectively as possible with inadequate materials. He further indicates that teachers stress an increased availability of materials would aid them in individualizing instruction to fit each student's personal needs, which is critical in motivating many students. He also noted that our educational system is facing the twin threats of tight budgets and declining productivity, which seriously affect the performance of teachers. The percentage of the schools' budget allocated for books, which for years has been a major part of the education environment, is dropping steadily at a time when 18,000,000 Americans sixteen years of age and older are functionally illiterate (Frank, 1977).

SOME FACTORS INFLUENCING REDUCED FUNDING FOR INSTRUCTIONAL MATERIALS

One of the dilemmas which teachers currently face when designing educational programs for the handicapped, is the lack of funds to purchase instructional materials to meet the individual needs of each child in the classroom. Commercially produced instructional materials, educational media, multi-media kits, and educational equipment are available on the market for use; however, the cost of these items is putting them out of

reach for classroom teachers. The shape of the schools' budget is preventing teachers from purchasing adequate materials needed to reach out and help each child effectively.

Some factors which have adversely influenced the amount of money allocated for instructional materials include: Attitudes of the community toward education, resulting from assessment of high taxes; dollars being diverted to pay for extra fuel; higher salary settlements being negotiated; and the back-to-basic movement, which implies the need for textbooks only in the classroom (O'Reilly, 1978). As teachers' salaries and fuel costs increase, the part of the school budget left for instructional equipment and materials decreases (Fowkes, 1978). For example, in 1971, four percent of a school's budget was used for equipment and materials, and in 1976 less than three percent of the budget was used (Fowkes, 1978, p. 4).

IS THERE AN ALTERNATIVE TO REDUCED FUNDING FOR INSTRUCTIONAL MATERIALS?

Until recently, material designed specifically for use with exceptional children was scarce. Therefore, special education teachers became skillful in adapting teaching materials designed for "normal" children to meet the needs of exceptional children. As pointed out by Anderson, R., Hemenway, and Anderson, J. (1969), there is a considerable supply of teaching material designed for "normal" children which can be adapted for the exceptional child. However, Anderson, Hemenway, and Anderson (1969) found that there is a reluctancy by some educators to consider the use of commercially prepared materials, which is

probably related to the unresolved issue of the teacher's role in the classroom.

Some educators, such as Blatt and Garfunkel (1966), believe that it is desirable for teachers to become actively involved in developing materials for the children in their classes. This position implies that the teacher knows her children the best; has studied their problems more carefully; and by designing and constructing her own materials, she will become a better teacher.

The opposing viewpoint to teacher constructed materials (Anderson, Hemenway, and Anderson, 1969; Blackman, 1967; Gallagher, 1967) indicates that teachers should depend on the experts in the field, e.g., curriculum designers and specialists, to construct the instructional materials for exceptional children. Considering the vanishing dollar in today's schools for instructional materials, it is felt that a combination of commercially produced and teacher constructed materials will become the most feasible and desirable approach. According to Anderson, Hemenway, and Anderson (1969), it is expensive to prepare an individualized curriculum. Today, PL 94-142, mandates an individualized instructional program for each handicapped child; this, alone, calls for the classroom teacher to become intimately involved with all aspects of the handicapped child's instructional program. Increased demands and limited funding are forcing teachers to adapt existing materials; create their own, and devise innovative techniques for delivering an effective and meaningful educational program to their students.

According to Blackburn and Powell (1976), one characteristic of an individualized curriculum is that an extensive amount of commercial, teacher, and student made instructional resources is collected and used in the schools and classroom.

Innovations in teaching often go unnoticed unless considerable amount of funding goes into it. Small scale innovations are only shared among a few. As discussed by Lance (1977), one of the major problems facing education is the under-utilization of good teaching ideas. While many teachers are very creative and innovative in designing and adapting curriculum materials, they are not provided the opportunities to share their ideas. Dissemination of teaching ideas and technology, according to Lance (1977), occurs more by chance than by design, which is probably due to lack of financial resources. Teachers should be encouraged to continue to create, design, construct, and adapt instructional materials to meet the needs of the handicapped child, whose problem may not fit into already formulated categories of available materials. They should also be encouraged to share these ideas and innovations. As related by Rogers and Shoemaker (1962), innovations must be shared; innovations and communication are essential for change to take place.

The teacher who creates, constructs, and adapts materials to classroom needs, demonstrates commitment to the students, motivation to teach, and confidence in his/her ability as a teacher. As indicated by Heidmann (1973), an adequately equipped and well-organized classroom for a successful

instructional program is one shared by homemade and purchased materials.

Anderson, Zia, Springfield, and Greer (1977), in discussing instructional material centers, point out that it is still the responsibility of the classroom teacher to select, retrieve, adapt, construct, and evaluate the instructional materials for use with handicapped children in their classes. Goodman (1978), relates that instructional materials are one of the special teacher's most potent tools; teachers need to be flexible and creative for children without obvious physical limitations who may, nevertheless, require something special in the way of learning materials. She further indicated that teachers need to become instructional engineers and make the best use of all the instructional materials at their disposal.

PREPARING FOR THE FUTURE

Pre-service and in-service training programs have done very little to promote creativity and resourcefulness in teachers. However, with the limited financial support education is currently receiving, it becomes imperative that teachers create and use their own instructional materials while, at the same time, acquiring a high degree of expertise in selecting, adapting, and evaluating commercially produced instructional materials.

Traits of creativity in teachers must be developed and utilized (Olmo, 1977) if the challenge of reduced funding for instructional materials is to be met. Instructional materials that were once discarded after a period of use in the classroom

must be recycled for additional use. In addition, teachers must look for "low cost" materials that have proven to be just as effective in remediating learning problems. Read (1977) points out that in designing teacher made and/or low cost materials, the purpose for which the material is to be produced must be defined at the beginning; simplicity, clarity, and brevity should be the aim. He further pointed out that it is important in training producers of low cost materials to relate theory and project work as far as possible to real problems. In using low cost media materials in health education, Morley (1977) relates that many teachers are reluctant to use low cost materials because the materials have not been evaluated in regard to effectiveness.

Field testing of the material to be used with handicapped children and research data that has been gathered on materials are important kinds of information to be considered when designing, evaluating, and selecting instructional materials for classroom use. However, it may not be worth the time and money invested if considerable adaptation is required to make the material useful for the special education learners in the class (Boland, 1976). Materials should not only be inexpensive to produce, but also inexpensive to deliver and maintain (Read, 1977). In addition, materials created and/or adapted should be based on the assessment of the classroom environment, children's needs and teachers' needs (Boland, 1976).

Recycled magazines (Seskin, 1977); posters and photographs (Read, 1977); 35-mm photographic slides and tape recorded sound (Hitchens, 1978; Morley, 1977); flip-books (Jacobs, 1976);

games (Lucky and Miller, 1978); prescription books (Lucky, 1978, in press); recycled newspaper (Cheyney, 1978); and sculptures (Tunkin and Kapperman, 1978) are a few examples of the kinds of instructional materials and ideas teachers have created and adapted for classroom use.

CONCLUSIONS

There is no simple alternative to meeting the challenge of the vanishing dollar for instructional materials. However, one alternative is for teachers to utilize their own creativity, and to become more resourceful and innovative in their approach to teaching. A second alternative is to strictly evaluate and select costly materials before investing money into them. This evaluation must include the students' learning modality; the assessed needs of the classroom; long term and short term objectives; cost of replacing missing parts; sharing between teachers; adaptability of the materials; and durability. A third alternative is to shop around for low cost materials that can effectively serve the student's need. A fourth alternative is to use materials from the school's environment, home environment, and the surrounding community. A fifth alternative is to actively involve the handicapped students and their parents in the production, selection, and evaluation of instructional materials.

NOTE:

Materials and ideas that will be presented were developed and compiled through a grant from the Ralston Purina Company.

The purpose of the grant was to demonstrate, through production, how materials such as newspaper, aluminum cans, cereal boxes, empty cartons, old textbooks, etc., can be recycled for teaching purposes in the home or school.

The ideas and materials that have been produced to date have been shared with pre-service teacher trainees, in-service teachers, parents, and administrators. The response has been very favorable. The main reason given is that they are simple to design, resources are readily available, and they are easy to duplicate with minimum amount of time and money.

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